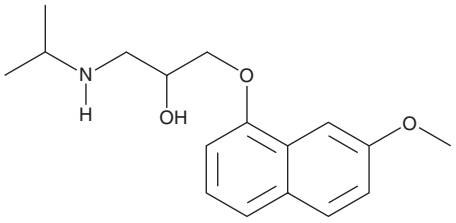
PRODUCT INFORMATION

rac-7-methoxy Propranolol

Item No. 17576

CAS Registry No.: 76275-53-1
Formal Name: 1-[(7-methoxy-1-naphthalenyl)oxy]-3-[(1-methylethyl)amino]-2-propanol
MF: $C_{17}H_{23}NO_3$
FW: 289.4
Purity: ≥95%
UV/Vis.: λ_{max}: 220, 236, 280 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

rac-7-methoxy Propranolol is supplied as a crystalline solid. A stock solution may be made by dissolving the *rac*-7-methoxy propranolol in the solvent of choice, which should be purged with an inert gas. *rac*-7-methoxy Propranolol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of *rac*-7-methoxy propranolol in ethanol and DMSO is approximately 30 mg/ml and approximately 50 mg/ml in DMF.

rac-7-methoxy Propranolol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *rac*-7-methoxy propranolol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. *rac*-7-methoxy Propranolol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Propranolol, one of the first β-blockers used in cardiovascular medicine, inhibits β1-, β2-, and β3-adrenergic receptors with log KD values of -8.16, -9.08, and -6.93, respectively.[1,2] Ring-hydroxylated isomers of propranolol also antagonize β-adrenergic receptors and demonstrate potent vasodilator activity.[3] *rac*-7-methoxy Propranolol is an intermediate for the preparation of *rac*-7-hydroxy propranolol.

References

1. Baker, J.G. The selectivity of β-adrenoceptor antagonists at the human β1, β2 and β3 adrenoceptors. *Br. J. Pharmacol.* **144(3)**, 317-322 (2005).
2. Mehvar, R. and Brocks, D.R. Stereospecific pharmacokinetics and pharmacodynamics of β-adrenergic blockers in humans. *J. Pharm. Pharm. Sci.* **4(2)**, 185-200 (2001).
3. Oatis, J.E., Jr., Russell, M.P., Knapp, D.R., *et al.* Ring-hydroxylated propranolol: Synthesis and β-receptor antagonist and vasodilating activities of the seven isomers. *J. Med. Chem.* **24**, 309-314 (1981).

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